

Graph a Line Given a Table of Values OR a y-intercept and slope

How do we tell if we have a line?

x	y
0	4
1	7
2	10
3	13
4	16
5	19

1st differences

$$\begin{aligned} 7-4 &= 3 \\ 10-7 &= 3 \\ 13-10 &= 3 \\ 16-13 &= 3 \\ 19-16 &= 3 \end{aligned}$$

all the
SAME
 \therefore we have
a line!

x	y
0	-6
1	-1
2	4
3	9
4	14
5	19

1st diff

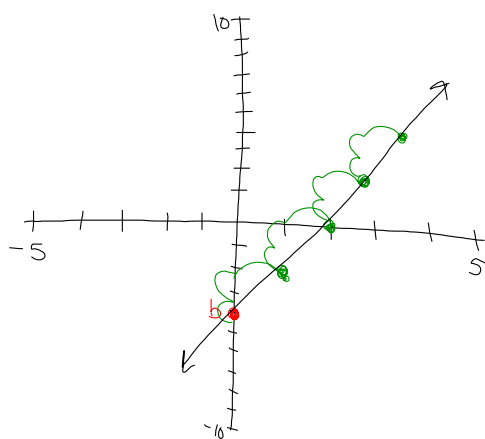
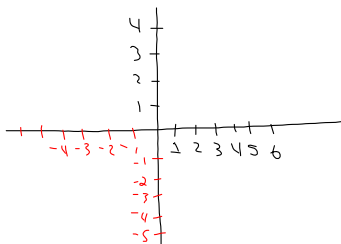
$$\begin{aligned} -1-(-6) &= 5 \\ 4-(-1) &= 5 \\ 9-4 &= 5 \\ 14-9 &= 5 \\ 19-14 &= 5 \end{aligned}$$

all 5
 \therefore Line
 $\therefore m = 5$
 $y = 5x - 6$

$$y = 2x + 1$$

x	y
0	$2(0) + 1 = 1$
1	$2(1) + 1 = 3$
2	5
3	7
4	9
5	11

$$\begin{aligned} 3-1 &= 2 \\ 5-3 &= 2 \\ 7-5 &= 2 \\ 9-7 &= 2 \\ 11-9 &= 2 \end{aligned}$$



Let's graph in 30s
or less.

$$y = 2x - 4$$

$$b = -4 \text{ (y-int)}$$

$$m = 2$$

(go up 2,
right 1)

HW Graph $y = 2x + 1$

$$y = -2x - 1$$

$$y = 3x + 4$$

$$y = \frac{2}{5}x + 1$$

$$y = -\frac{3}{4}x + 8$$

start at 1 on
the y-axis.
Go up 2, right 5!